

must admit the possibility that the same mode of formation may extend all over the coral-seas. At the same time, it must be granted that the necessary conditions for the formation of barrier-reefs and atolls might sometimes be brought about by subsidence. So long as a suitable bottom is provided for coral-growth it is probably immaterial whether this is done by the submergence of land or by the ascent of the sea-floor. That subsidence has in some cases taken place seems to be proved by the depth of some atoll-lagoons—40 fathoms—unless this depth can be supposed to be due to solution by sea-water, and not to the progressive deepening during a subsidence with which the upward growth of the reef could keep pace.

*Ooze.*—The bed of the Atlantic and other oceans is covered with a calcareous ooze formed of the remains of *Foraminifera*, chiefly species of the genus *Globigerina*. It has been observed that in these deep-sea deposits, the larger and relatively thinner pelagic shells are rare or absent at greater depths than 2000 fathoms, while the thicker-shelled varieties abound. This has been referred to the solvent action of sea-water, whereby the more fragile forms are attacked and removed in solution (ante, pp. 74, 741). Among abyssal deposits, foraminiferal ooze ranks next in abundance to the red and gray clays of the deep sea (p. 767). It is a pale-gray marl, sometimes red from peroxide of iron, or brown from peroxide of manganese; and it usually contains more or less clay, even with occasional fragments of pumice. It covers an area of the North Atlantic probably not less than 1300 miles from east to west, by several hundred miles from north to south. The total area of ocean-bottom occupied by globigerina-ooze is estimated at 47,752,500 square miles, the mean depth of the surface of the